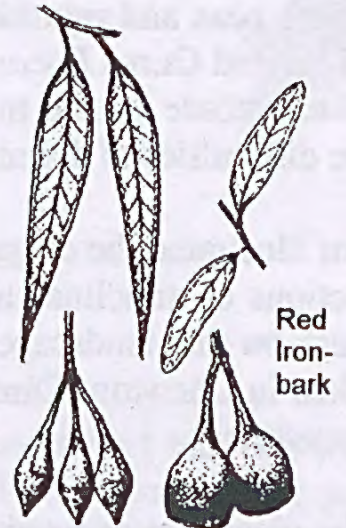


Ballarat Naturalist



The Box-Ironbark Forests

Speaker: Ern Perkins OAM

The Box-Ironbark Forests are not at first sight particularly attractive; often straggly, they are not a welcoming bright green and have not until recently been the subject of much attention. Indeed the first edition of Jane and Malcolm Calder's book called them *The Forgotten Forests*. Now however they have received considerable attention—now that only 17% of their original extent is left.

Their extent is defined more by geology, altitude and climate rather than by a clear-cut description of vegetation. They occur on the northern slopes of the Great Divide on the Ordovician-Silurian rocks which often bore gold, and where the climate is characterised by hot summers and cold winters, with rainfall between 400 and 550mm annually.

The trees are usually slow-growing; most of them are secondary growth as a result of timber harvesting for various purposes during the gold rush and since then for firewood. As a result many individuals are multi-trunked after repeated coppicing. Such trees are not big and have few hollows. The composition of the vegetation associations varies considerably, with the dominant trees changing within distances as small as a few metres as well as between widely spaced areas such as Chiltern and Bendigo.

Ern showed a series of slides depicting these variations, together with typical understorey plants which can also vary. We saw Yellow Box *E. melliodora* preferring deep alluvial soils; the straggly Long-leaf Box *E. gonicalyx* with its close relative Bundy *E. nortonii* whose fruit and leaves have a white powdery covering; the tall erect Yellow Gum *E. leucoxylon*, the distinctive heavily grooved bark of the Red

Ironbark *E. tricarpa*, the finely textured bark of the Grey Box *E. microcarpa*.

Clearings often reveal a profusion of Daphne Heath *Brachyloma daphnoides*, various parrot peas and mintbush. On the fringes of the forest Candlebarks *E. rubida* occur while Red Gums *E. camaldulensis* line creeks. In the drier north-west of the state, bulokes intrude on the margins—nowhere is there a sharp vegetation boundary, hence the difficulties of defining the forest on vegetation alone.

Ern illustrated the characteristic geology with thin soils, rocky outcrops and the cross-sections of anticlines and synclines revealed in road cuttings. The gold rush left its mark on this landscape with stumps, mining relics, mullock heaps, stone huts; shots taken in Chewton, Campbell's Creek, and Fryerstown revealed water races, dams and cemeteries.

The plants are adapted to fire; despite the desolate look, vegetation quickly re-shoots and the ground cover exhibits massive renewal. But in a drought many seedlings die so the cover remains sparse, something we were to see on Sunday's excursion. Ern showed us slides taken at the same spot 25 years apart to illustrate his points.

Ground cover and understorey plants include a range of wattles: Rough *A. aspera*, Gold-dust *A. acinacea*, Golden *A. pycnantha*, Wirrakee *A. williamsonii*, Hedge *A. paradoxa*, Spreading *A. genistifolia*. Orchids might include Common Beard, Hyacinth, Scented Sun and Nodding Greenhood. Ern's close-up shots vividly illustrated these.



Tall Sundew

Other shrubs Ern showed us were Drooping Cassinia *C. arcuata*, known locally as "Coffee Bush" because of its pale brown flower-heads; *Grevillea alpina*, *Tetratheca ciliata*, Tall Sundews, Chocolate Lily and *Hakea decurrens*. Box Mistletoe *Amyema miquelii* was common on Yellow Gum and Yellow Box. Rarer plants included Sticky Boronia *B. anemonifolia*, Rosy Heath-myrtle, and Primrose Goodenia. You might also find Creamy Candles, Flame Heath, and Slender Rice-flower.

Today's threats to this habitat come from lines cleared, for example, for sewage—a track three 'dozer widths wide was put through and the "scrub" removed. Grazing (the difference between fenced-off plots and non-protected areas was considerable) and timber-getting continue, while bee hives are situated amongst the prolifically (in a good year) flowering Yellow Box trees; bees compete with honeyeaters for nectar, and the absence of birds is very noticeable under these drought conditions once the hives have been moved in. What effect might this have on native pollinators? Will plants they pollinate die out? The effect may not be seen immediately if seeds survive for a while in the soil. Only

later, when there's a dearth of seedlings, will the impact become clear.

Rubbish dumping, the removal of what is perceived as untidy "scrub" and trail bike riding are ongoing problems, together with the spread of weeds such as Quaking Grass.



Excursion: Box-Ironbark Forests

Leader: Ern Perkins OAM

Members travelled north to Green Gully, just outside Newstead and here we were greeted by Lesley and Ern. We were each given a detailed map showing the proposed route for our excursion to the Muckleford area of the Box-Ironbark forest. It is an area experiencing severe drought conditions.

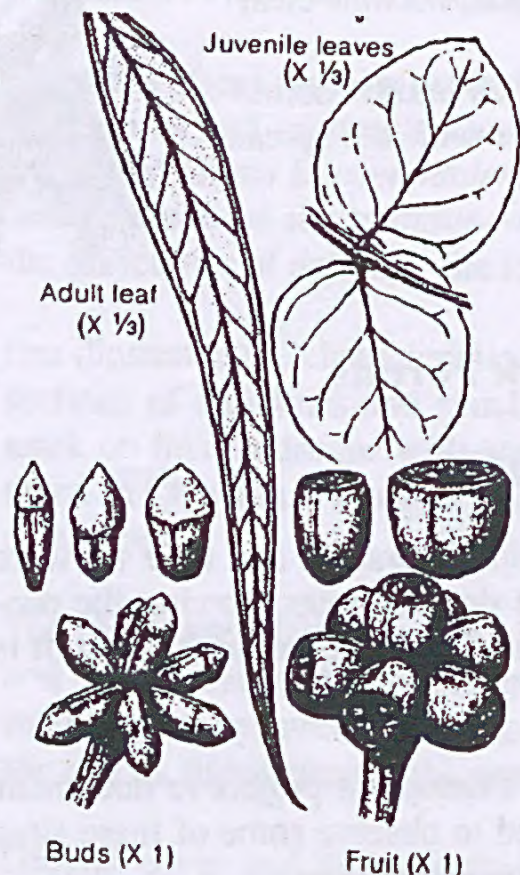
Five years ago, the Castlemaine FNC developed a Photopoint project to document bushland and other vegetation. Our day was planned to observe some of these sites and to decide if any possible changes had occurred since that time.

Then on to our first stop at a dam beside Box Track. Here Ern directed our attention to Yellow Gum *E. leucoxylon* and Grey Box *E. microcarpa*. The sparse understorey consisted of drought-affected Golden wattle *A. pycnantha*, Chinese Coffee Bush *Cassinia arcuata* and Gold-Dust Wattle *A. acinacea*. However, a rain shower the previous week produced pleasing evidence of emerging seedlings and among these were Magenta Stork's-bill *Pelargonium rodneyanum* and Sheep's-burr *Acaena echinata*.

We moved on to Golf Links Track where we observed the drought-distressed Mealy Bundy *E. nortonii* trees and this fact of course produced a different view from the earlier Photopoint picture.

In contrast to our previous stop we next came to a heathy forest but it was a very unhappy middle storey of Daphne Heath *Brachyloma daphnoides* that confronted the members. Here, too, many plants of Red-Anther Wallaby Grass *Joycea pallida* had succumbed to the drought but a lovely lush green bush of Hairy Geebung *Per-soonia rigida* was flourishing and admired by us all. Perhaps a suitable drought resistant plant for central Victorian home gardens? The dominant trees at the site were Red Box *E. polyanthemos* and Red Stringybark *E. macrorhyncha*. It was an obviously species-rich area in wetter seasons but, nevertheless, plants seen happily flowering at ground level were Parson's Bands *Eriochilus cucullatus*, Tiny Greenhood *Pterostylis parviflora* and Sharp Midge-orchid *Corunastylis despectans*. A Stumpy-

Long-leaf box and Bundy



tailed Lizard lazed in the sunshine while watching us pass by.

Along Red, White and Blue Track we stopped at a site where there was little change from the Photopoint picture taken 5 years previously. The forest trees surrounding us were almost entirely Red Ironbark *E. tricarpa* and appeared to be surviving the drought quite well.

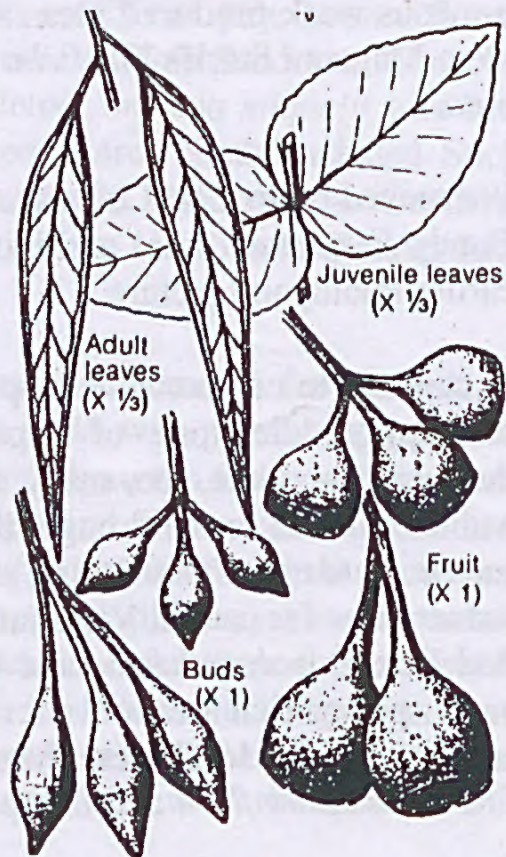
Still along R,W & B Track, we came to an area where the trees were mostly Brown Stringybark *E. baxteri*. Some dead branches were noted on these trees, otherwise very little had changed. Across the way, we came to a gully where devastation from the drought was obvious. Many of our members recalled where, some years ago, they exclaimed at the beauty of the aromatic Sticky Boronia *B. anemonifolia* but it was not so this time. Nevertheless, while most of the shrubs were brown, there were small signs of life here

and there. Nearby, Newstead Landcare Group has erected fencing for study plots but the dryness had taken its toll here too.

Again at another R,W & B Track stop, we walked towards a slope to another site revealing impressive Red Ironbark and Red Stringybark trees but here there was little evidence of change. Back down the slope we noticed a newly built Chough's nest which was thought to have been built following the recent rain shower. Found, too, were Honeypots *Acrotriche serrulata*, Guinea Flower *Hibbertia exutiacias* and Groundsel *Senecio tenuiflorus*, while the Chinese Coffee Bush specimens in the gully were fresher in appearance compared with those at our previous stops. Then to lunch where we sat in the shadow of the large Poppet Head of the R,W & B Mine.

On to a forest of Red Gum *E. camaldulensis*, Yellow Box *E. melliodora* and Yellow Gum. Silver wattles were growing in this area as well as Hedge Wattle, Nodding Saltbush *Einadia nutans* and

Yellow Gum



Variable *Glycine G. tabacina*. It was interesting to note the lack of growth of a small sapling compared to the picture of 5 years ago. Here, too, the bird life was more abundant and included Grey Thrush, Scarlet Robin, Red Wattlebird, Grey Currawong, Galah, Crimson Rosella, Brown Treecreeper and Fuscous, Yellow-tufted, Brown and White-naped Honeyeaters.

Slightly different from previous sites, we found Yellow Gum and Grey and Red Box while the lower strata included Downy Grevillea *G. alpina* and Matted Bush-pea *Pultenaea pedunculata*.

The final Photopoint site was an area of gravelly rises on Sandy Creek Road and again Yellow Gum and Grey Box were a feature of the landscape. The understorey vegetation was sparse with many dying specimens of Golden Wattle and Chinese Coffee Bush while the introduced plants of Orache *Atriplex prostrata* and Large-flower Wood-sorrel *Oxalis purpurea* were thriving, irrespective of drought times. Perhaps the most noteworthy bird sighting for the day was a flock of White-browed Babblers, seen busily flitting through the trees.

This long-term project to document changes in vegetation at various habitats within the region has begun and is producing some very interesting results.

Lesley and Ern were thanked for providing such an enjoyable outing, and afternoon tea and a chat finished our day.

Pat Murphy.



JUNE

April Meeting Points

39 members and visitors were welcomed.

Business Arising from Previous Meeting:

North Gardens Wetland working bee arranged for 9.30 am, Tuesday 6 May. Assemble at Gregory St entrance. Bring weeding tools. Six to eight members are willing to attend.

Reports:

Forest Resort development: John Gregurke attended a recent public meeting chaired by Cr. Phil Millar. Public land to south will be leased for 21 years, Indigenous Land Use Agreement is at draft stage but land swap has not yet been organised. Forest Resort interested to identify stakeholders.

Field Reports

- Pat Murphy: Buff-banded Rail along Leigh River.
- Ken McDonnell: Spotless Crake at St George's Lake, late March.
- Ern Perkins: Wombat flushed out of culvert by heavy rain in Castlemaine.
- Bob Pitcher: Luminous Fungi at Durham Lead but not as many or as brilliant as some years probably due to dry weather.
- John Gregurke: At Lake Wendouree, 1 cygnet hatched around end of March. At Lake Burrumbeet, several hundred Red-necked Stint, some in breeding plumage; 300 Pelicans.
- Tony Johns: Caught European Carp while fishing in Murray River at Colignan.
- Frank Harrap: Ten species of Correa flowering very well. Scarlet Nerines and Correas are attracting Eastern Spinebill and Brown Thornbill.
- Carol Hall: 50 Blue-billed Ducks at Lake Wendouree. Eastern Spinebill in Wendouree garden on Kangaroo Paw cultivar.
- Claire Dalman: Correas at Mt Beckwith suffering effects of dry seasons, some appear to have died.
- Greg Binns: Silvereye, Grey Fantail, Eastern Spinebill, Brown Thornbill and Grey Currawong regularly cohabiting in Pleasant St garden. Used Silvereye nest found in quince tree.
- John Mildren: Dead Ringtail Possum with suckling young taken to Animal Rescue. Appeared to have been killed by cat. Koala drinking from bird bath, indicating sickness, also taken to Animal Rescue.
- Peter Billing: 2 Ringtail Possums scurrying along electricity wires early in morning.
- Paul Norquay: First Nodding Greenhood Orchid leaves appeared during first week of April after 30mm rain at Egerton.

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May 3 - July 27 2003

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North Gardens Wetland

Eight members attended the working bee on Tuesday May 6th—a warm calm and sunny day. We were asked to remove tree guards and stakes from "Field Nats. Island" and plant a small area with ground cover near the Plaque. This was accomplished between 9.30am and noon. Whilst there we noticed that the overflow channel around the south side of the wetland had been excavated to a greater depth, removing the original plantings. Here's Ian Rossiter's reply to my (Editor's) query as to what was being done.

"The North Gardens Wetlands were the first such project constructed in Ballarat. Over the past 2 years we have had dramas trying to prevent water entering or leaving the wetlands when required. (Sewerage Spill August 2001, planting aquatic plants required keeping them exposed to light in 2002). The subsequent wetlands have had devices included that allow bypassing. The Channel has been modified to enable us to open the weir gates at the bypass channel to divert water around the system. Unfortunately approximately 500 plants have been removed, which we are replacing with new tubestock from our reveg. nursery. Plantings have been arranged over the next month to reinstate the bypass channel to ensure it is stabilised."

Upcoming Events

July 6 Excursion: A bus trip around areas of salinity; we will hire a mini-bus to be driven by John Gregurke; cost approx. \$10 per head. Give your name to John from Friday June 6th onwards.

Wednesday August 27th: Evening visit to Ballarat Observatory—Mars is the closest it ever comes to Earth this week and we have the opportunity to see this event thanks to Bob Curtain's arrangements. A charge of \$6.50 per head is made. Pray for a cloudless night!

Club Campout September 12-14 at Sturt Mill near St. Arnaud. Cost \$12 per head per night. This is box-ironbark country and will provide a very different experience from recent campouts. Greg Binns can give you more information, and more details will be provided nearer the time.

Calendar

June

Fri. 6	Meeting: Members' Presentations: <i>Land for Wildlife/ANN Camp-out.</i>	
Sun. 8	Excursion: <i>Ballarat Bird Park</i> - half day; meet at park 1.30-1.45pm	
Wed. 18	Mid-month Excursion: <i>Lake Burrumbeet.</i> Meet 9.30 am as usual.	
Tues. 24	Committee Meeting @ Fran's,	7.30pm

July

Fri. 4	Peter Dahlhaus: Salinity—Rethinking an old problem.	
Sun. 6	Excursion with Peter Dahlhaus to Lake Corangamite (bus trip—see note on p. 7)	

Supper Duty:

June: Tony Johns and Maureen Christie

July: Eileen Anderson and Kay Preston

Committee

President	Mrs. Carol Hall
Vice-President	Mr. Greg Binns
Secretary	Mr. John Gregurke
Treasurer	Mr. Bob Curtain

Miss Helen Burgess.....
Miss Maureen Christie.....
Mrs. Claire Dalman.....
Mrs. Carol Hall (Editor).....

Miss Fran Hanrahan.....
Mr. Les Hanrahan.....
Mrs. Kay Preston.....

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Editor:

Website: www.ballarat.yourguide.com.au Click on *Local Info.* Search *Environment.*

Meetings are held at the Ballarat Horticultural Centre, cnr. Gregory & Gillies Sts (VicRoads 254 F8) on the first Friday of the month at 7.30pm.

Excursions: Depart from Ballarat Market Place (formerly Creswick Plaza) Creswick Rd., Ballarat (VicRoads 255 M10) at 9.30 am unless otherwise specified.

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